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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/466,025	12/17/1999	PATRICK A. RAYMOND	COMP:0078/FLE	9687

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INTELLECTUAL PROPERTY ADMINISTRATION
LEGAL DEPARTMENT, M/S 35
P.O. BOX 272400
FT. COLLINS, CO 80527-2400

EXAMINER

HUYNH, KIM T

ART UNIT	PAPER NUMBER
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2112

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/466,025	Applicant(s) RAYMOND ET AL.	
	Examiner Kim T. Huynh	Art Unit 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17 and 19 is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-16 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Klein et al. (US Patent 6,138,194)

Klein teaches the use of a movement sensor for sensing a movement of a bus card from a bus connector to detect whether the card is present, or has been removed, in order determine whether power to the bus connector should be activated or deactivated (col. 2, lines 7-19). Klein discloses that his movement sensor can be either a mechanical switch or an optical switch interchangeably (col.2, lines 20-31) and are equivalent in that either will function to perform the movement sensing operation when mounted adjacent to, or integral to, the bus connector. Klein further discloses that two switches (i.e., movement sensor's) may be employed at opposite ends of the bus connector (col. 2, lines 31-33). Finally, Klein discloses optical card detector 210, having a light emitting diode (LED), which shines onto an optical detector (i.e., phototransistor) when no bus card is present in physical slot. Light from the LED is blocked from the

optical sensor when a bus card is inserted into the connector slot so that the bus card is interposed between the LED and the optical sensor (Figure 2; col. 4, lines 17-42).

As per claims 1, 6, 12, Klein discloses a computer system comprising:

- an electromagnetic energy source located on a first side of a system board proximate a connector the electromagnetic energy source for generating electromagnetic energy directed at least toward a second opposing side of the system board is disclosed by Klein's detector 210, which includes a LED (i.e., an electromagnetic energy source), proximate to the right side of connector 204 which directs energy towards the opposing side of the connector. In that Klein's construction of the apparatus is disclosed to be conventional computer construction (Fig. 1-2, 4-5), it is clear that physical slot connector 204 is mounted to a system board along with the optical card detector 210.
- An electromagnetic energy detector located on the second side of the system board the electromagnetic energy detector for detecting a presence of electromagnetic energy when a hot-pluggable component is not mated to the connector and the electromagnetic energy is thereby unobstructed by the hot-pluggable component, the electromagnetic energy detector further for detecting an absence of electromagnetic energy when the hot-pluggable is mated to the connector and the electromagnetic energy is thereby obstructed by the hot-pluggable component is disclosed by Klein's optical card

detector 210 which detects the presence/absence of electromagnetic energy (i.e., light) using an optical detector (i.e., phototransistor) proximate to the left side of connector 204. Light from the LED is blocked from the optical sensor when a card is inserted into slot so that the card is interposed between the LED and the optical sensor.

As per claims 2, 7, 13, Klein discloses the system further comprising a processor 101, 200 communicating with the electromagnetic energy detector for receiving detection of the presence or absence of electromagnetic energy by the electromagnetic energy detector (col. 4, lines 43-58).

As per claims 3, 8, 14, Klein discloses the system further comprising a hard drive 109 for storing an indication that the hot-pluggable component is absent when the presence of electromagnetic energy is detected, the hard drive further for storing an indication that the hot-pluggable component is absent when the absence of electromagnetic energy is detected (col. 3, lines 45-66; col.2, lines 34-43).

As per claims 4 and 18, Klein discloses that the electromagnetic energy is at least infra-red in that Klein's LED is defined to emit light and therefore any LED device, including infrared type, would be included in Klein's system (col.3, lines 27-29).

As per claim 5, 9, 11, Klein discloses the connector is an edge connector since bus connector 120 is disclosed and shown having a physical slot 204 (see also Figure 4-5), which meets the ambit of the claim language.

As per claim 10, Klein discloses first and second optical detectors (switches 502, 504; Fig. 5; col. 6, lines 16-31), which reads on the breadth of claim language with regard to first/second electromagnetic energy sources and first/second electromagnetic energy detectors.

As per claim 15, Klein discloses a material which is impervious to the electromagnetic energy at a position on the hot-pluggable card since the card obstructs (i.e., blocks) light from the LED when inserted (col. 4, lines 38-40).

As per claim 16, Klein discloses generating the electromagnetic energy comprises the step of generating a beam of electromagnetic energy directed toward the opposing side of the system board (Figure 2; col. 4, lines 17-42).

Allowable Subject Matter

3. As per claim 17 is allowable.

As per claim 19, applicant's claimed invention is deemed allowable over the prior art of record as the prior art fails to teach or suggest a second electromagnetic energy detector located on top of the first electromagnetic energy detector in combination with

other limitations as recited in independent claims and further in view of the specification and applicant's arguments.

Response to Amendment

4. Applicant's amendment filed on 3/4/05 have been fully considered but does not place the application in condition for allowance.

a. In response to applicant's argument that Klein does not teach or suggest an electromagnetic energy source located on a first side of a system board proximate a connector. Examiner respectfully disagrees. As Klein notes at col.2, lines 20-33, figure 2, discloses detector 210, which includes a LED (ie an electromagnetic energy source) proximate to the right side of connector 204 which directs energy towards the opposing side of the connector. Furthermore, Klein discloses the bus connector includes a slot to receive the bus card and the movement sensor includes a switch located inside the slot at a furthest insertion distance of the bus card into the slot. The movement sensor includes a switch located outside of the bus connector. This switch is oriented so that the switch is activated by the bus card when the bus card is mounted in the bus connector. The movement sensor includes two switches (ie movement sensors) may be employed at opposite ends of the bus connector. It reads on the breadth of the claimed languages therefore it is properly stated in the rejection of record.

b. In response to applicant's argument that Klein does not teach or suggest electromagnetic energy source is located on a first side of a system board proximate a connector and is directed toward a second opposing side of the system board on which the electromagnetic energy detector is located. Examiner respectfully disagrees. As the

above, Klein's detector 210 which includes a LED (ie. An electromagnetic energy source) proximate to the right side of connector 204 which directs energy towards the opposing side of the connector. Klein's detector 210 which detects the presence/absence of electromagnetic energy (ie light) using an optical detector(ie phototransistor) proximate to the left side of connector 204. Light from the LED is blocked from the optical sensor when a card is inserted into slot so that the card is interposed between the LED and the optical sensor. Thus, the prior art teaches the invention as claimed and the claims do not distinguish over the prior art as applied.

Conclusion

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (571)272-3635 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 9:00AM- 6:00PM. If attempts to*

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reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached at (571)272-3632 or via e-mail addressed to [mark.Rinehart@uspto.gov].

The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9306 for regular communications and After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

A handwritten signature in black ink, appearing to read 'Tim Vo', with a long, sweeping horizontal stroke extending to the left.

TIM VO
PRIMARY EXAMINER

Kim Huynh

May 23, 2005